

**ABSTRACT**

An insulator substrate or printed circuit board (PCB) having a filled and plated via. A sidewall of the via and preferably opposite sides of the insulator substrate are first plated with a conductive material. The plated via is then filled with an electrically conductive fill composition. A conductive cap layer is preferably formed over both ends of the conductive fill composition and the opposite surfaces of the insulator substrate, and can be bonded to a surface mount contact as a land or a pad.